

Notice of Allowability

Application No.

10/764,946

Examiner

Duc T. Doan

Applicant(s)

ESPESETH ET AL.

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to The Board of Appeal decision 11/16/07.
2. ☒ The allowed claim(s) is/are 7-10, 12-18 (renumbered by Examiner).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

HYUNG S. SOUGH
SUPERVISORY PATENT EXAMINER

02/01/09

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for the examiner's amendments to the claims was given in a telephone interview with John L. Rogitz (Reg #33549) on 1/25/2008 and 1/26/2008.

The application has been amended as follows:

Claim 7, line 1, replace "A hard disk drive controller executing logic" with -- A method for a hard disk drive controller, the method comprising--.

Claims 8 and 9, line 1, replace "The controller" with --The method--.

Claim 10, line 1, replace "A HDD" with --A Hard Disk Drive (HDD)--.

Status of Claims

Claims 1-15 are in the application,

Claims 1-6, and 11 are canceled. Claims 7-10, 12-18 are allowed.

Allowable Subject Matter

Claim 7 is allowed because the prior art of record does not teach or suggest that "A method comprising: in response to a selection of throughput optimization, determining at least one next command to execute in a queue of commands by determining a pipe length and

dividing the pipe by the sum of a pipe length, at least one time period, and at least one probability;

.... in response to a selection of the optimization based on number of operations per second, determining a next command to execute in a queue of commands by determining a number of commands in a pipe and dividing the product by the sum of a pipe length, at least one time period, and at least one probability, wherein the next command is accessed for execution.” as recited in the claim, and in combination with other remaining claimed subject matter set forth in the claimed invention.

Claim 10 is allowed because the prior art of record does not teach or suggest that “A Hard Disk Drive (HDD) comprising: means for determining a throughput benefit associated with executing each command; or means for determining an operational rate benefit associated with executing each command,

...wherein the means for determining a throughput benefit uses a pipe length in a numerator and in a denominator of a quotient in a way that the pipe length in the numerator does not cancel the pipe length in the denominator. “as recited in the claim, and in combination with other remaining claimed subject matter set forth in the claimed invention.


The remaining dependent claims, not specifically mentioned, are allowed for the same rationale as the independent claim(s) being based from.

Conclusion

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Souh can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


HYUNG S. SOUGH
SUPERVISORY PATENT EXAMINER
02/01/08